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Performance Work Statement (PWS) For

Component Enterprise Data Centers (CEDC) and Ramstein Air Base and Vogelweh Air Base – Buildings 2039, 2288, and 2301

Name:	**HEADQUARTERS UNITED STATES AIR FORCES EUROPE (USAFE)**
Organization:	**U.S. Air Force, 86 Communication Squadron (SCXP)**
Contracting Activity:	**GSA FEDERAL ACQUISITION SERVICE REGION 3**
Contract Type:	**Firm Fixed Price/Cost**
Contract Vehicle:	**OASIS**
Executive Summary:	**Engineer, Furnish, Install & Test (EFI&T) fully functional Component Enterprise Data Centers (CEDC) located at the Ramstein AB and Vogelweh AB, Buildings 2039, 2288, and 2301**

C.0 Description/specifications/statement of work

C.1. Background

The purpose of the modernization to Vogelweh's Component Enterprise Data Center (CEDC) is to implement an agile, highly capable, and standardized computing facility to deliver Theater Information Technology (IT) services to authorized users in a manner optimized for performance, efficiency, and cybersecurity. The existing CEDC located on Ramstein Air Base (AB) fails to meet the technical guidance put forth by the Department of Defense (DoD) Information Enterprise Architecture Data Center Reference Architecture, date June 30, 2019. Since it is not viable to lose the existing capability the CEDCs provides to the European Theater, the modernization effort to standup a fully functioning and compliant CEDC in Building 2039 was initiated to allow for a smooth, scalable, and expedient transition from the currently operating location to the new site.

C.1.1. Mission

The 86th Communications Squadron requires the modernization Vogelweh's CEDC to deliver an agile, highly efficient, and standardized computing facility capable of providing Theater Information Technology (IT) services.

C.2. Scope

The scope of this project includes modifying Building 2039 to house a Datacenter, TIA-942 Level three (3) rated, to meet the operational requirements for the European Theater. The project will provide additional unclassified and classified empty racks fully capable of supporting new or existing equipment with little to no modification required (equipped with power, grounding, wire management, or related structures). The requirements within Buildings 2288 and 2301 are not required to meet the TIA-942 standard. This contract does not provide for training, or the transfer of any equipment or services from the existing CEDCs to the new facilities outlined in this PWS.

C.3. Objective

The contractor shall provide non-personal services to provide fully functional Level three (3) rated Component Enterprise Data Center (CEDC) within Building 2039 as defined by ANSI/TIA-942 and Data Center Reference Architecture, Version 3.0, June 30, 2019. The CEDCs shall be located at Ramstein AB and Vogelweh AB, Building 2039 following the Building Industry Consulting Service International (BICSI) best practices for the design, construction, and installation of the Ramstein AB CEDC (CDRL A004).

C.4. Requirements/Description

C.4.1. General Requirements (The following shall be required for all three facilities) C.4.1.1. The Contractor shall provide for the removal and disposal of any equipment, cabling, cabinets and any associated termination equipment by coordinating with the designated Contracting Officer Representative (COR). Proper coordination with the base POC, tenants, Defense Information Systems Agency (DISA), and commercial carriers must be administered to ensure mission continuity (CDRL A002).

C.4.1.2. The Contractor shall provide all personnel, equipment, parts, material, tools and any other items necessary to perform the installation, termination, and testing of equipment and cabling. These materials, equipment, and supplies provided shall be new. Government personnel reserve the right to perform inspections of the Contractor's work during any and all phases of the installation (CDRLs A001 and A002).

C.4.1.3. The Contractor shall provide a BICSI engineer to certify the CEDC in Building 2039 meets ANSI/TIA-942 Level 3 Rating (CDRL A004).

C.4.1.4. The Contractor shall ensure all networking equipment is on DISA's The Department of Defense Information Network (DODIN) Approved Products List (APL). Newly-installed equipment shall be maintainable and supportable for at least five (5) years.

C.4.1.5. The Contract shall adhere to US and German requirements and regulations in regards to altering/adding to the internal layout of the facility (CDRLs A001, A002, A003, A004, A005). The Contractor shall design, install, and configure Buildings 2039 and 2288 to conform to TEMPEST Guidelines IAW AFSSA 7777 (CDRL A004).

C.4.1.6. Provide sufficient detail with engineering plans for Buildings 2039, 2301, and 2288 to allow necessary POCs the opportunity to review the proposed design. The proposed design should include a floor plan drawing with proposed cabling layout, a sketch with elevation of proposed equipment racks and equipment. Additionally, any proposed design to renovate or alter the internal structure of Building 2039 must be provided to allow government civilian engineers at least 60 days to review and approve the plan (CDRLs A001, A002, and A003).

C.4.1.7. The Contractor shall ensure the installation of new equipment will not impact the critical missions of Ramstein AB and Vogelweh AB.

C.4.1.8. The contractor shall be held responsible for finding storage for all required items needed to complete the installation. The government does not have the facilities capable to support any storage.

C.4.1.9. The Contractor shall provide all project management, design/engineering (site/civil, structural, mechanical, electrical, plumbing), subcontractors (site work, rigging, mechanical, electrical, plumbing), and other, as required.

C.4.1.10. The Contractor shall perform all site preparation and allied support necessary per facility design, IAW all local and national regulations, ordinances, codes, and the product specifications.

C.4.1.11. The Contractor shall connect all utilities, networking and other support infrastructure to deliver a fully functional data center facility. The Contractor shall identify all (utility, network, and other support infrastructure) "connection points" and coordinate access with the government.

C.4.1.12. The Contractor shall develop elevation drawings and single-line interconnect drawings of the equipment to relocate and use said drawings to install the equipment in the Datacenter Communications Room (DCR). The drawings shall include any ancillary equipment that is connected to the equipment: typically sitting atop rack-mounted equipment. The drawings shall be provided to the 86 CS/SCX Office for approval before relocation occurs.

C.4.1.13. The contractor shall submit a Telecommunications Systems Installation Plan (TSIP) for approval before accomplishing any tasks (CDRLs A002 and A003). The following are considered at a minimum:

- *Quality Plan* (QP) shall include detailed planning of development, installation and testing with milestones.
- *Functional Specifications* (FS) shall include the description of supply, technology and hardware used, the data structures functionality. It shall include annexes with documentation on hardware manufacturers to install. It shall include the list of materials indicating manufacturer.
- *Integrated Master Schedule* to include milestones, timelines, events, testing dates, and estimated completion dates.
- *Test protocols.* It shall include testing protocols for monitoring and verifying correct commissioning will be developed.
- *As-Built Documents* shall include a description of the modifications suffered from the FS or a new revision with the changes in specifications due to tests and adjustments.

C.4.2. Component Enterprise Data Center (CEDC), Vogelweh AB **Building 2039**
C.4.2.1. The Contractor shall provide all aspects associated with a Data Center IAW TIA-942 and provide: communications wiring, power, grounding, 19 inch standard equipment racks (~~maintain a 2:1 ratio with~~ a minimum of ~~20~~ 18 NIPR / 10 SIPR racks), raised floor, cabling, associated support equipment, HVAC, grounding, facility Uninterrupted Power Support (UPS), security and alarms (must tie into the existing Vindicator system), modify existing facility to meet physical security requirements, fire detection/suppression system in accordance with US, German standards (CDRL A004).

C.4.2.2. The Contractor shall complete the installation of horizontal cabling between Building 2039 Cable Head and the CEDC floor.

C.4.2.3. The Contractor shall provide a CISCO networking solution (min of 10 GB) connecting the CEDC using the Government provided fiber path to the Information Transfer Node (ITN) in Building 2759 located on Vogelweh.

C.4.2.4. The Contractor shall provide proper connections and pathing to allow for hookup to an onsite power generator located outside of the Building 2039. The aforementioned power generator itself will be installed as a separate Contract Line Item (CLIN).

C.4.2.5. The Contractor shall provide proper connections and pathing to allow for hookup to an onsite power generator located outside of the Building 2039. The aforementioned power generator itself will be installed as a separate Contract Line Item (CLIN).

C.4.2.6. The Contractor shall provide the following space requirements IAW First Floor Plan, Appendix B. The contractor shall maximize floor space; create NIPR/SIPR zones IAW TEMPEST (Telecommunications Electronics Materials Protected from Emanating Spurious Transmissions) Standard AFSSI 7702. (CDRL A003).

C.4.2.7. The Contractor shall ensure power cabinets are properly installed to include sufficient grounding IAW the standards referenced in ANSI/TIA-942 (CDRL A005).

C.4.2.8. The Contractor shall maximize parts standardization, interchangeability, and commonality; and minimize the number and types of spares. Ensure any wiring connectors utilized are the type currently maintained by the local base and are reliable.

C.4.2.9. The Contractor shall provide a new Uninterrupted Power Support (UPS) to support the CEDC, with a minimum goal of providing power to the network equipment in Building 2039 for ~~two (2) hours~~ enough time for the generator to come online and the auto transfer switch to switch over (CDRLs A002 and A004). This time shall not be less than 10 minutes.

C.4.2.10. The Contractor shall provide an HVAC system to support the CEDC based on installed equipment IAW ANSI/TIA-942 Level 3 Rating (CDRL A004).

C.4.2.11. The Contractor shall integrate the security system with existing security system(s) located on Vogelweh (Vindicator). The security system(s) shall be installed by an authorized Vindicator installer (CDRL A004).

C.4.2.12. The Contractor shall provide advanced energy meters that will be installed with this project IAW DoD Guidance for Executive Order 13693: Planning for Federal Sustainability in the Next Decade, March 2016.

C.4.2.13. The Contractor shall ensure power usage for the CEDC meets DoD Guidance for Executive Order 13693: Planning for Federal Sustainability in the Next Decade, March 2016 (CDRL A005).

C.4.3. Outside Plant Services

C.4.3.1. Fiber Path One (1)

C.4.3.1.1. The contractor shall engineer and install a new 144 strand, all dielectric underground single mode (SM) fiber optic cable (FOC) from Vogelweh Building 2039, location to Building 2759 Information Transfer Node (ITN) approximately 3,000 feet (CDRLs A001 and A002).

C.4.3.1.2. The Contractor shall survey and build a solution using current fiber optic cable standards and match existing connectivity in place. Furthermore the contractor shall ensure the appropriate amount of spares for this project. The Contractor will be provided duct availability upon request.

C.4.3.1.3. The contractor shall use the existing manhole and ducting from B-2039 and B-2759: B-2039 to MH220 to MH218 to MH-216 to MH-214 to MH-212 to MH-210 to MH-208 to MH-204 to MH-202 to MH-200 to B-2759.

C.4.3.2. Fiber Path Two (2)

C.4.3.2.1. The contractor shall engineer and install a new 144 strand, all dielectric underground single mode (SM) fiber optic cable (FOC) from Vogelweh Building 2039, location, to Building 2789 Information Transfer Node (ITN) approximately 1.8 miles (CDRLs A001, A002, and A003).

C.4.3.2.2. The contractor shall provide a manhole and duct path from Building. 2039 to connect to the existing fiber path starting from manhole HM-252 for an approximately 1200 feet.

C.4.3.2.3. The contractor shall continue the 2nd fiber path connection from HM-252 through the existing manhole pathways: HM-252 to HM-250 to HH-249 to HM-248 to MH-246 to HH-245.

C.4.3.2.4. The contractor shall follow the direct buried fiber path from HH-245, then provide a manhole and duct injection point near the end of the direct buried line closest too (and connect to) HM-140 (see attached maps) for approximately 1700 feet.

C.4.3.2.5. The contractor shall continue the 2nd fiber path connection from MH-140 through the existing pathways and finally connect to Building. 2789 Information Transfer Node (ITN): MH-140 to MH-142 to MH-144 to MH-146 to MH-148 to MH-150 to MH-152 to MH-156 to MH-158 to Building. 2789 ITN.

C.4.4. CEDC 2039 Generator

C.4.4.1. The Contractor shall furnish and install a diesel emergency power generator, with 300 kVA nominal output (PRP) in accordance with the proper German Institute for Standardization (IAW DIN/VDE guidelines) (See appendix A), installed in a 6 meter Intermodal Container.(CDRLs A001, A002, and A005).

- Machine unit 300 kVA
- Starter battery lead 24V / 200 Ah
- 2 ea. engine blinds
- 2 ea. air sound absorber
- 2 ea. weather grids
- 1 ea. boot

- 1 ea. exhaust silencer / exhaust gas piping up to the roof container VA / exhaust fumes nozzle as deflector hood V2A / wall duct.
- Fuel day tank with trough, steel, elevated, 500 Liter (L), fuel tubing , overfill sensor, pump combination
- Storage tank steel, double-walled 1500 L, filling/venting spout, wiring between aggregate and switchgear.
- Steel container L=6 m, W=2.5 m, H=3 m, soundproof/thermally insulated, with access door and panic bar, ribbed type pipe heater, lighting, emergency light, fire extinguisher, warning signs, exterior painting in standard RAL-color of RAL 8014 Sepia Brown and RAL 080 8010 Beige.

C.4.4.2. Contractor Shall contractor shall completely remove the existing steel container that resides to the west of Building 2046 and south of Building 2039, all internal components, and all cabling going to and from the existing steel container. The container's manufacturer is unknown and is approximately 2.5 meters (m) by 6 meters in size (CDRLs A001 and A005).

C.4.4.3. Work shall be carried out IAW applicable publications TRGS 521 Technische Regel für Gefahrstoffe, DGUV Regel 101-004 (BGR 128) Kontaminierte Bereiche, (See Appendix A) regulation on hazardous materials, and disposed of (CDRL A005).

C.4.4.4. The foundation of the replacement steel container shall maintain the removed steel container's original size of 2.5 meters by 6 meters.

C.4.4.5. Utilize the existing cable trench between Building 2039 and the new container, as well as the new container to the transformer.

C.4.4.6. Contractor shall deliver the generator to the building site, unload and place on foundation with a contractor provided truck- mounted crane (max. outreach 6 m).

C.4.4.7. Install new external cables between transformer building and container and pull back existing cables from Building. 2039 and install cables in trench up to the container; shorten and connect cables 2x ($3x240^2/120^2$).

C.4.4.8. The contractor shall perform the initial operation and turning over of all systems, including TUEV documents to the customer (CDRL A003).

C.4.4.9. As per Baustellenverordnung (building site regulation), paragraph 21, the contractor shall provide a health and safety coordinator and provide a health and safety plan to be prepared and submitted at least 2 weeks prior to start of work at location (CDRL A005).

C.4.4.10. The contractor shall execute all works covered in this project in accordance with regulations in the applicable environmental protection management programs (See DIN/VDE in appendix A). The contractor shall carry out the works in a resource-saving manner. That includes water, energy, and other resources. The generation of refuse or debris shall be minimized. Whenever possible, materials shall be recycled or reused. The contractor shall comply with all German and United States Air Force (USAF) regulations regarding environmental protection, to

include the German FGS. The contractor shall be able to understand and implement all environmental laws and regulation that apply to this project (CDRL A005).

C.4.5. Ramstein Building 2288 (Optional Task)

C.4.5.1. Renovate (Upgrade) Building 2288

C.4.5.1.1. The Contractor shall renovate/upgrade the Communication Room (CR) of Building 2288 into a facility capable of maintaining continuity of operations/availability of the Non-classified Internet Protocol (IP) Router Network (NIPRNet) and Secret Internet Protocol Router Network (SIPRNet) critical mission systems of Ramstein AB. (CDRL A001, A002, A003, A005)

C.4.5.1.2. The Contractor shall build the CR of Building 2288 to be: Fire-rated, performance optimized, energy efficient, and environmentally friendly IAW applicable DoD, Federal and local building codes.

C.4.5.1.3. The Contractor shall install all data center facility security systems to include fire detection/notification/response, access control, IAW applicable standards. Coordination with 86CS is required.

C.4.5.1.4. The Contractor shall install all data center facility mechanical and electrical systems to include uninterruptible power supplies (UPS) and generator(s). All systems shall be modular and scalable where practical.

C.4.5.1.5. The Contractor shall install all data center information technology (IT) space, networking racks/enclosures and cable trays/raceways, conduit, cabling, and wiring.

C.4.5.1.6. The Contractor shall install a minimum of 16 racks to accommodate NIPRNet and SIPRNet communications systems IAW Attachment C. See below tables 4.5.2A (NIPR) and 4.5.2B (SIPR).

C.4.5.1.7. Cable ducts/trays shall be installed and/or utilized in the communication rooms.

C.4.5.1.8. The Contractor shall ensure a neat and orderly installation utilizing wire management.

C.4.5.1.9. The Contractor shall provide all cables required to connect installed equipment.

C.4.5.1.10. The Contractor shall install a new data protection system to provide automated local data backup, recovery, and archiving.

C.4.5.1.11. Raised (Access) Floor. Raised Floor system shall have metallic tiles with anti-static covering and system stringers should be the bolted to the floor pedestals. Floor system should be integrated into the Equipotential Ground plane IAW MIL-HDBK-419B, para. 1.5.1.1.1.4.1. The raised floor grid of stringers should be tied to the Building ring ground or structural steel at four (4) corners (minimum). Floor load rating should be at least 300 pounds per square foot to accommodate the load requirements for the different areas.

C.4.5.1.12. Sufficient electrical power (110V and 220V, and circuits) equal to or greater than what is currently available in Room 110, Building 500, and will provide electrical outlets at positions nearby the equipment racks.

C.4.5.1.13. A separate HVAC system that provides automatic humidity controls to prevent humidity fluctuations potentially harmful to personnel or equipment operation. It shall also provide automatic temperature controls to prevent temperature fluctuations and provide an alarm when fluctuations become potentially harmful to personnel or equipment; adjustments to heating and cooling may be made manually.

C.4.5.1.14. Defined hot and cold aisles and air flow management for cooling efficiency. Rows of racks should be oriented so that the fronts of equipment racks face each other. Likewise, the backs of equipment racks should also face the backs of each other.

C.4.5.1.15. Inside Plant (ISP) cabling from the room(s) to the CR and will install copper punch down patch panels, including cable ladders (or similar) within ceiling to route cables to the CR.

C.4.5.1.16. Integrate existing generator into Building 2288 datacenter.

C.4.5.1.17. Provide a UPS system. UPS system shall be sized to accommodate the maximum critical load the data center (CR) is expected to need, to satisfy the requirements of this PWS plus growth capability. The UPS system shall provide a minimum of 30 minutes runtime.

C.4.5.1.18. Dual Sump Pump system to prevent water collection in the Vault of Building 2288. Sump pump shall be equipped with alarms for water level/flood indication. It shall provide an alert if the pump isn't working properly or if water reaches a preset level.

C.4.5.1.19. Fire Protection/Suppression/Alarm Contractor shall install a fire protection system to meet the requirements of this PWS. The design shall include fire suppression, fire detection, and fire alarm and shall be installed IAW applicable federal, state, local, and industry codes and standards. This system(s) shall be coordinated with the Ramstein AF Civil Engineering Squadron.

C.4.5.1.20. Main Distribution Frame. Contractor shall remove all non-active circuits residing on the Main Distribution Frame. Contractor shall consolidate all active circuits from the MDF into a single cabinet. Contractor shall remove and disposition the MDF in coordination with and approval from 86CS.

C.4.5.2. Relocate Equipment into Building 2288

C.4.5.2.1. **Interconnect Drawings.** The Contractor shall document all interconnects within and between the existing racks that pertain to the NATO/Coalition/MPE equipment from Room 110 (NCC/Data Center) of Building 500, prior to relocation and use this documentation and drawings to setup equipment in newly renovated CR of Building 2288.

C.4.5.2.2. **Vendor Certified Personnel**. The Contractor shall utilize vendor-specific certified personnel to execute this relocation (HP, ORACLE/SUN, Dell, CISCO, etc.), such that warranty

requirements are not voided, or any Service Agreements voided, and any issues that could arise as a result of the relocation can be addressed and resolved by the certified personnel.

C.4.5.2.3. **Downtime**. The Contractor shall ensure minimum downtime for systems affected by the relocation. Contractor shall coordinate all downtimes with the 86 CS.

C.4.5.2.4. **Move Coordination**. The Contractor shall coordinate with the Plans and Programs Office (86 CS/SCX) and Information Technology (IT) Managers for the equipment relocation.

C.4.5.2.5. The Contractor shall install the appropriate number of new, 45RU, 84" equipment racks in CR of Building 2288 to accommodate all identified equipment in this project (Table 4.5.2A). Equipment racks shall have a cable management system and Power Distribution Units (PDUs). The new equipment racks are to be numbered similarly to the legacy labeling scheme.

C.4.5.2.6. The Contractor shall consolidate and/or relocate the identified Coalition network equipment into the new equipment racks in Building 2288 as identified in Table 4.5.2. Contractor shall coordinate with and get approval from 86CS for exact equipment and rack locations in the CR.

Table 4.5.2A: Existing Equipment within Building 2288

Rack Number	Overall Contents	Relocate?	Note
1	FODPs, Cable Management, PWR	Yes	Confirm contents with 82CS
2	FODPs, Cable Management, Cisco Switches	Yes	Confirm contents with 82CS
3	Cisco Switches, UPS (APC)	Yes	Confirm contents with 82CS
	DWDM Rack	No	Confirm contents with 82CS
FP1	Optera Metro (Nortel Networks)	No	Confirm contents with 82CS
	Telect (Breaker)	No	Confirm contents with 82CS
	Willitron	No	Confirm contents with 82CS
	Main Distribution Frame	No	Remove non-active; Consolidate active circuits into a cabinet

C.4.5.2.7. Contractor shall relocate all applicable NATO/Coalition/MPE equipment into newly installed racks. Table 1 shows the equipment that remains after offline equipment have been identified and removed from current Coalition racks in NCC area of Building 500. The equipment that is/will be outdated, End of Life, End of Service, and/or End of Sale are identified in the last column and which shall be replaced with Joint Interoperability Test Command (JTIC) certified equipment. The Contractor shall confirm with 86CS before commencing this task.

Table 4.5.2B: Consolidated Coalition Equipment for Relocation

Enclave	Rack	Rack Unit	Make	Model	Replace w/ JTIC Certified Equipment
SIPR	1	40-39	Dell	PowerEdge R710	x
SIPR	1	38-35	Dell	PowerEdge R905	x
SIPR	1	34-33	Dell	PowerEdge 2650	x
SIPR	1	22	Harville INC		

SIPR	1	20-19	ICC		
SIPR	1	8-18	Data Domain	ES20	
SIPR	1		Data Domain	ES20	
SIPR	1		Data Domain	ES20	
SIPR	1		Data Domain	ES20	
SIPR	1	6	Dell	PowerEdge R420	
SIPR	2	35	Pulizzi Engineering Inc.		
SIPR	2	33-34	Dell PowerEdge 2950	Dell PowerEdge 2950	x
SIPR	2	29	Cisco Systems	ASR 1001-X	
SIPR	2	14-27	Cisco Systems	Catalyst 6500-E	
SIPR	2	9	TACLANE	KG-1752	
SIPR	2	9	TACLANE	KG-1752	
SIPR	2	9	TACLANE	KG-1752	
SIPR	2	6-8	Cisco Systems	3900 Series	
SIPR	3	34-35	Cisco Systems	ISE 3515	
SIPR	3	29	Dell	PowerEdge 1750	x
SIPR	3	27-28	Cisco Systems	MCS 7800	x
SIPR	3	18-19	Dell	PowerEdge 2950	x
SIPR	3	13-17	Dell	PowerEdge 2900	x
SIPR	3	6-7	Dell	PowerEdge 2850	x
SIPR	4	25	Cisco Systems	Catalyst 3750-X	x
SIPR	4	24	TrippLite	16 Port KVM Switch B020-016	
SIPR	4	24	Cisco Systems	3800 Series x 2	
SIPR	4	22	Dell	PowerEdge R620	x
SIPR	4	17	Dell	PowerEdge R620	x
SIPR	4	15-16	Dell	PowerVault MD3220i	
SIPR	5	39-40	Dell	PowerEdge R710	x
SIPR	5	37-38	Dell	PowerEdge 2850	x
SIPR	5	35-36	Dell	PowerEdge 2850	x
SIPR	5	33-34	Dell	PowerEdge 2850	x
SIPR	5	23-24	Dell	PowerEdge R720	x
SIPR	54	43	Cisco	Catalyst 2960G	x
SIPR	54	41	Cisco	Catalyst 3560-X POE+/C3KX-NM-1G	x
SIPR	54	39	Cisco	Catalyst 3750-X POE+/C3KX-NM-1G	x
SIPR	54	37-38	General Dynamics	KG-175X	
SIPR	54		General Dynamics	KG-175X	
SIPR	54		General Dynamics	KG-175X	
SIPR	54		Red Eagle	KG-245X	

SIPR	54	1-2	ICC	Cat 5E	
SIPR	55	20	General Dynamics	KG -175A	x
SIPR	55	11	General Dynamics	Taclane Micro KG175D	
SIPR	55	11	General Dynamics	Taclane Micro KG175D	
SIPR	55	11	General Dynamics	Taclane Micro KG175D	
SIPR	55	12	Dell		
SIPR	55	12	Dell		
SIPR	56	39-31	CISCO	CISCO 2600	
SIPR	56	25	General Dynamics		
SIPR	56	25	General Dynamics	Taclane Micro KG175D	
SIPR	56	25	General Dynamics	Taclane Micro KG175D	
SIPR	68	38-39	Cisco	UCS C240 M3	
SIPR	68	36-37	Cisco	UCS C240 M3	
SIPR	68	36-39	Cisco	UCS C240 M3	
SIPR	68	34-35	F5	BIG-IP 5050	
SIPR	68	30-31	Cisco	UCS C240 M3	
SIPR	68	28-29	Cisco	UCS C240 M3	
SIPR	68	27-26	Cisco	UCS C240 M3	
SIPR	68	25-24	Cisco	UCS C240 M3	
SIPR	68	8-17	Cisco	Catalyst 4507 R	
SIPR	FPI 8301	42	Hubbell	Hubbell Fiber Shelf	
SIPR	FPI 8301	36	Info Box	Trinzic 1400	
SIPR	FPI 8301	17-26	CISCO	ASR 1006	
SIPR	FPI 8301		Anatel		
SIPR	FPI 8301	35	Info Box	Trinzic 1400	
SIPR	FPI 8301	7-8	Paloalto Networks	PA-5020	
SIPR	FPI 8301	5	Spectracom	Netclock/GPS 9383	
SIPR	FPI 8301	35	Info Box	Trinzic 1400	
SIPR	FPI 8301	8	TRIPP LITE		
SIPR	FPI 8301	32	TRIPP LITE		
SIPR	FPI 8301	36	TRIPP LITE		
SIPR	FPI 8302	18			

C.4.6. Tech Control Modernization in Building 2301 (Optional Task)

C.4.6.1. All installation, equipment racks/cabinets, cables (communications, power, grounding, etc.), equipment, pathways, wire management, patch panels, etc. shall be IAW standards referenced in Appendix A and AFSSI 7702 “Emission Security Countermeasures”, and NSTISSAM Tempest/2-95 “National Security Telecommunications and Information Systems Security Advisory Memorandum (NSTISSAM) Red/Black Installation Guidelines”.

C.4.6.2. The UPS system shall be sized to accommodate the maximum critical load the tech control is expected to need to satisfy the requirements of this PWS plus 25% growth capability. The UPS system shall provide a minimum of 30 minutes runtime. (CDRL A003)
C.4.6.3. C.4.6.3.

C.4.6.4. All installed equipment must be incorporated into the existing power grid and facility generator. (CDRL A005)

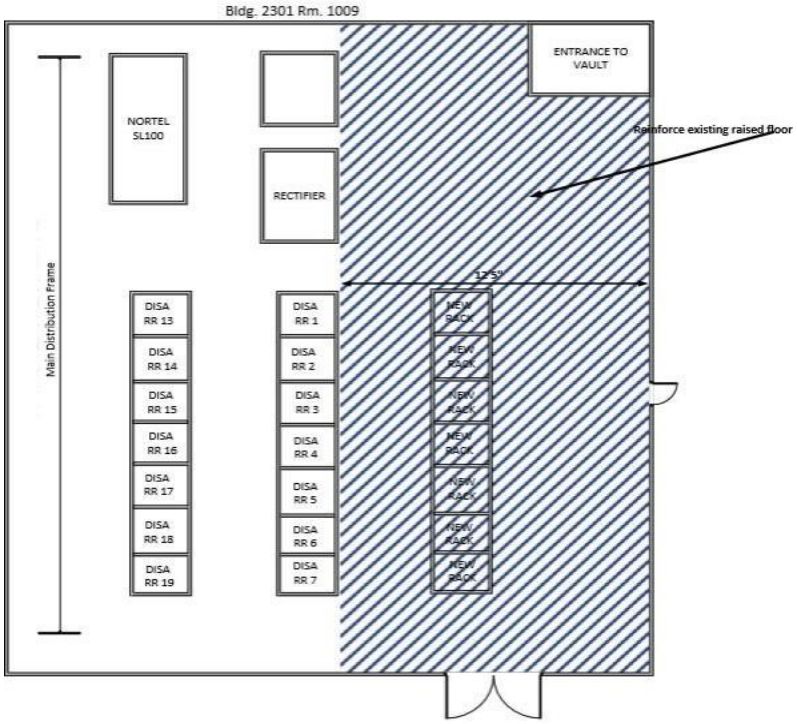
C.4.6.5. Contractor shall provide into service a fire protection system to meet the requirements of this PWS. The system shall be modular and scalable where practical and sized to meet 25% growth capability. The design shall include fire suppression, fire detection, and fire alarm and shall be installed IAW applicable federal, state, local, and industry codes and standards. (CDRL A005)

C.4.6.6. The design and installation of the alarm system shall be coordinated with the base Civil Engineering Squadron.

C.4.6.7. Raised Floor System

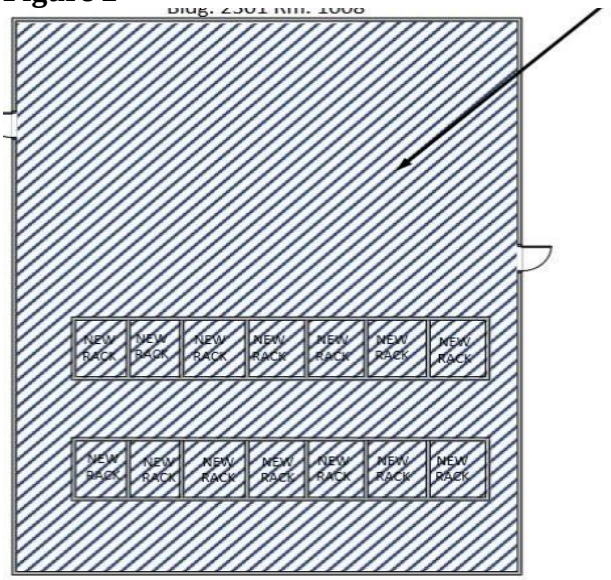
C.4.6.7.1. Building 2301, Room 1009: The Contractor shall reinforce approx. 600 sq. ft. of the existing raised floor system in the Technical Control Facility in Building 2301, Room 1009. Floor system should have metallic tiles with anti-static covering and system stringers should be bolted to the floor pedestals. Floor system should be integrated into the Equipotential Ground plane IAW Military Handbook – Grounding, Bonding, and Shielding for Electronic Equipment and Facilities (MIL-HDBK-419A para. 1.5.1.1.1.4.1). The raised floor grid of stringers should be tied to the Building ring ground or structural steel at four (4) corners (minimum). Floor load rating should be at least 300 pounds per square foot to accommodate the load requirements for the different areas. (See Figure 1)

Figure 1



C.4.6.7.2. Building 2301, Room 1008: The Contractor shall install approx. 420 sq. ft. of 18 inch (minimum) raised floor system throughout the new Tech Control in Building 2301, room 1008. Floor system should have metallic tiles with anti-static covering and system stringers should be bolted to the floor pedestals. Floor system should be integrated into the Equipotential Ground plane IAW MIL-HDBK-419B para. 1.5.1.1.1.4.1. The raised floor grid of stringers should be tied to the Building ring ground or structural steel at four (4) corners (minimum). Floor load rating should be at least 300 pounds per square foot to accommodate the load requirements for the different areas. (See Figure 2)

Figure 2



C.4.6.7.3. Building 2301, Room 1007: The Contractor shall install approx. 400 sq. ft. of 18 inch (minimum) raised floor system throughout the new Tech Control in Building 2301, room 1007. Floor system should have metallic tiles with anti-static covering and system stringers should be bolted to the floor pedestals. Floor system should be integrated into the Equipotential Ground plane IAW MIL-HDBK-419B para. 1.5.1.1.1.4.1. The raised floor grid of stringers should be tied to the Building ring ground or structural steel at four (4) corners (minimum). Floor load rating should be at least 300 pounds per square foot to accommodate the load requirements for the different areas.

C.4.6.7.4. Building 2301, Room 1006: The Contractor shall install approx. 400 sq. ft. of 18 inch (minimum) raised floor system throughout the new Tech Control in Building 2301, room 1006. Floor system should have metallic tiles with anti-static covering and system stringers should be bolted to the floor pedestals. Floor system should be integrated into the Equipotential Ground plane IAW MIL-HDBK-419B para. 1.5.1.1.1.4.1. The raised floor grid of stringers should be tied to the Building ring ground or structural steel at four (4) corners (minimum). Floor load rating should be at least 300 pounds per square foot to accommodate the load requirements for the different areas.

C.4.6.8. **False Ceiling:** Building 2301, Room 1008: The contractor shall remove the false ceiling in Building 2301 Rm. 1008, to accommodate for the proper ventilation once the new raised flooring, racks and equipment are installed. Coordination with base Civil Engineering Squadron is required.

C.4.6.9. **Alternate Distribution Frame:** Building 2301, Room 1006: The contractor shall consolidate the alternate distribution frame in Building 2301 Rm. 1006, to increase rack space. Coordination with 86th CS is required. (CDRL A003)

C.4.6.10. **Removal of Interior Walls:** Building 2301, Room 1009, 1008, and 1007: The contractor shall remove the interior walls between Rm. 1009 & Rm. 1008, as well as wall between Rm. 1008 & Rm. 1007 to increase rack space IAW with Attachment D. Coordination with base Civil Engineering Squadron. (CDRL A003)

C.4.6.11. Equipment Cabinets

C.4.6.11.1. The Contractor shall install minimum of thirty (30) new 45RU, 84” equipment racks in Building 2301 IAW with Attachment D. The equipment racks shall have a cable management system and Power Distribution Units (PDUs). The new equipment racks are to be numbered similarly to the legacy naming scheme. The cabinets for this requirement will be installed with the appropriate horizontal/vertical cable management, blanking panels, shelving and air distribution panels at the top of the cabinet. (CDRL A003)

- Equipment cabinets shall align with cable ladder and vented floor tiles shall be placed beneath the cabinet to allow forced cool air to flow from the bottom of the cabinet and be exhausted out the top through cabinet fan assembly.

- All cabinets shall be secured to the sub-floor using threaded rod connected to slotted channel that is attached to the subfloor. All cabinets shall be lockable.

- The Contractor shall provide and install ac power circuit extensions from the existing power distribution panel to each cabinet in the new Tech Control. The Tech Control shall have dual 230v

AC to cabinets terminated to a switched rack PDU. In addition one switched rack PDU with CEE7/3 sockets will be installed. All electrical work shall be labeled at the circuit panel with room and rack identification and at the equipment end with panel and circuit information. All electrical component work shall be performed in compliance with local base, state, federal, OCONUS & overseas codes, requirements and regulations.

C.4.6.12. Direct Current (DC) Power

~~C.4.6.12.1. The contractor shall install a negative 48 volt Direct Current (-48 V DC) power system to all racks within the new Tech Control. The contractor shall provide the battery bank and charging equipment for the -48V DC system. These systems shall be integrated into the facility DC power plant. (CDRL A003)~~

C.4.6.12.2. A main power distribution panel shall be provided with the DC power cabinet with distribution breakers A side and distribution breakers on the B side with appropriately sized breakers. Contractor shall install a minimum of 60 amp service to each of the cabinets in the row terminated to a Power Distribution Panel. The Distribution Panel shall be modular type with capabilities of at least 8 breakers on each of the A and B feeds. Breakers shall be sized to correspond to the loads installed in the cabinet. DISA requires a four (4) hour run time on the battery system. Reference Appendix C for current and future DC requirements. (CDRL A003)

- All DC power cabling shall use ~~black cabling for the negative 48V DC side and~~ red cabling for the positive (return) side IAW DISN Implementation Standards, Para. 7.1.5. Use of colored tape to mark the ends of the cable shall not be allowed.

C.4.6.13. **Copper Cable Pathways:** The Contractor shall provide a solid bottom cable tray installed above the cabinets and below the floor for running copper cables in the Tech Control. Cable trays shall be designed to accommodate a maximum calculated fill ratio of 50 percent to a maximum inside depth of 6 inches (150 mm). For planning purposes, the maximum pathway fill for installation shall be 25 percent of maximum capacity. Ladder cable trays and center spline cable trays shall not be utilized. Provide a minimum of 12 inches of clearance above cable trays for future access. All cable tray sections shall be bonded together and grounded to the Equipotential Ground Plane IAW Mil-Std-188-124B and Mil-Hdbk-419A, Vols I and II.

C.4.6.14. **Fiber Cable Pathways**: Fiber duct system for fiber optic cables shall be installed. FO duct shall be 24 inch x 4 inch Panduit FiberRunner® or equivalent. Fiber Optic Duct shall be installed above the cable tray that is run above the cabinets/racks for the distribution of fiber optic cables in Tech Control. A minimum of a 4 inch x 4 inch drop-out shall be installed from the main fiber duct to each cabinet/rack.

C.4.6.15. **Structured Cabling Requirements**:
C.4.6.15.1. Contractor shall utilize a mixture of fiber optic, Category 6A cable (CAT6A), RS530, and other assorted connections as required. There shall be a distribution bay for each row of cabinets for fiber optic and CAT6A cabling. These distribution bays shall house all of the connections from the commercial and base demarcation points located in the Technical Control room. These distribution bays shall house connections to each of the rows to include access to other communications rooms. All CAT6A and fiber optic cable shall follow the EIA/TIA standards. All

other cabling requirements shall follow the standards and guidance outlined in Appendix A: Standards.

C.4.6.16. Fiber optic cables interconnecting communications rooms shall contain individually jacketed, tight-tube buffered optical fibers. All optical fiber cable between communication rooms shall be terminated on Fiber Optic Distribution Panels (FODP). Intra-building backbone and horizontal fiber optic cable shall not be spliced. All runs shall be continuous between FODPs. Fiber optic cables shall be terminated by being fusion spliced to pigtails with LC connectors. All strands of fiber optic cables shall be tested IAW TIA-568.3-D (2016) and TIA 526-7-(2002) Measurement of Optical Power Loss of Installed Single-mode Fiber Cable Plant.

C.4.6.17. The Contractor shall utilize high density fiber panels at the distribution bays as required. All fiber optic connections shall utilize LC connectors front and back. All other fiber optic requirements should follow the standards and guidance outlined in Appendix A: Standards.

C.4.6.18. The Contractor shall provide 24 strands of single mode fiber and 24 strands of multimode fiber between the distribution cabinet at the end of each row to each of the other cabinets in the row. The fiber optic cable shall be terminated on separate 24-port FODPs at both ends.

- The Contractor shall 24 strands of single mode fiber and 24 strands of multimode fiber between each row to provide interconnectivity. The fiber optic cables shall be terminated on separate 24-port FODP at each end.

- The Contractor shall coordinate with the Base on the cable color code scheme. Listed below is an example for fiber color code scheme:

Color	Description
Aqua	For unclassified and encrypted data (black side)
Red	For classified and unencrypted data (red side)

C.4.6.19. CAT6A Cable Requirements:

C.4.6.19.1. The contractor shall utilize standard CAT6 patch panels IAW ANSI/TIA-568-A standards. All CAT6 cable will be custom fit.

- The Contractor shall provide 24 copper runs of UTP cable from the demark cabinet in Tech Control to the distribution cabinet at the end of each row in the Tech Control. The copper cables shall be terminated on separate 24-port panels at both ends.

- The Contractor shall provide 24 copper runs of UTP cable between the distribution cabinet at the end of each row to each of the other cabinets in the row. The copper cables shall be terminated on separate 24-port panel at both ends.

- The Contractor shall install 24 copper runs of UTP cable between each row to provide interconnectivity. The copper cables shall be terminated on separate 24-port panel at both ends.

- The Contractor shall coordinate with the Base on the cable color code scheme.

C.4.6.19.2. The Contractor shall furnish all materials for this project, except the equipment and/or hardware which is currently owned or leased by the government. Material and/or equipment specified by the Contractor must interface properly with existing government equipment that has already been determined to be reutilized. Unless otherwise specified, the Contractor shall provide copies of existing COTS technical or equipment manuals and warranty documentation and procedures for Contractor-furnished end-item system equipment maintenance. The Contractor shall identify and conduct new hardware familiarization for Government personnel to ensure proper operation and maintenance of the system(s). The Contractor shall transfer warranties to the Government at project acceptance. (CDRL A003)

C.4.6.19.3. Premise wiring (between distribution panels and proposed workstation locations) should already be installed and terminated in the CCF facility. All intra-building copper cabling, patch cords and termination equipment (patch panels, distribution panels, etc.) shall be ANSI/TIA-568-C.2 compliant. Single-mode or OM3, 50µm multimode fiber shall be used for intra-building fiber optic cable as required.

C.4.6.19.4. All patch cables, including fiber optic cables and UTP shall be compatible with the outside plant, premises wiring, and network equipment interfaces. Patch cables shall be properly supported with Velcro straps, neatly dressed, and properly labeled.

C.4.6.19.5. All new copper patch cables required for this installation shall be Category 6A.

C.4.6.19.6. All copper jumper cables utilized for this project shall have OEM fabricated cables with pre-installed OEM 8-pin modular connectors with protective boots. Fiber optic jumpers shall be OEM fabricated cables with pre-installed OEM connectors.

C.4.6.19.7. The contractor shall use vertical and horizontal wire managers to support the installation of patch cables. All cables shall be fanned and formed using Velcro straps to support cabling.

C.4.6.19.8. Patch cabling is to be installed using industry best practices for cable management. Use the midpoint of the switch as a guide to dress left or right in the cabinet/rack. All patch cables shall be properly supported, neatly dressed, and properly labeled.

E.0 Inspection and Acceptance

Inspection and acceptance of all work performance, reports, and other deliverables under this contract will be performed by USAFE TPOC and the GSA COR.

E.1.1. Basis of Acceptance

The basis for acceptance shall be compliance with the requirements set forth in the Task Order, the Contractor's proposal and other terms and conditions of the contract. Deliverable items rejected shall be corrected in accordance with applicable clauses.

Deliverables will be inspected for content, completeness, accuracy and conformance to Task Order requirements. Inspection may include validation of information or software through the use of automated tools, testing or inspections of the deliverables.

E.1.2. General Acceptance Criteria

Deliverables will be accepted when all discrepancies, errors or other deficiencies identified in writing by the Government have been corrected. The general quality measures, set forth below, will be applied to each deliverable received from the Contractor under this task order:

- Accuracy – Deliverables shall be accurate in presentation, technical content, and adherence to accepted elements of style.
- Clarity – Deliverables shall be clear and concise; engineering terms shall be used, as appropriate. All diagrams shall be easy to understand, legible, and relevant to the supporting narrative. All acronyms shall be clearly and fully specified upon first use.
- Specifications Validity – All Deliverables must satisfy the requirements of the Government as specified herein.
- File Editing – All text and diagrammatic files shall be editable by the Government.
- Format – Deliverables shall follow Air Force Handbook 33-337, The Tongue and Quill, dated 27 May 2015 (or latest edition). Where none exists, the Contractor shall coordinate approval of format with the COR or TR.
- Timeliness – Deliverables shall be submitted on or before the due date specified.

E.1.3. Draft Deliverables.

If the draft deliverable is adequate, the Government may accept the draft and provide comments for incorporation into the final version. All of the Government's comments to deliverables must either be incorporated in the succeeding version of the deliverable or the Contractor must demonstrate to the Government's satisfaction why such comments should not be incorporated.

If the Government finds that a draft or final deliverable contains spelling/grammatical errors, improper format, or otherwise does not conform to the requirements stated within this Task Order, the document may be immediately rejected without further review and returned to the Contractor for correction and resubmission. If the Contractor requires additional Government guidance to produce an acceptable draft, the Contractor shall arrange a meeting with the COR.

E.1.4. Written Acceptance/Rejection of Deliverables by the Government.

The Government will provide written acceptance, comments and/or change requests, if any, within five (5) work days from Government receipt of the draft deliverable.

Upon receipt of the Government comments, the Contractor shall have three (3) work days to incorporate the Government's comments and/or change requests and to resubmit the deliverable in its final form.

The Government shall provide written notification of acceptance or rejection of all final deliverables within three (3) work days. All notifications of rejection will be accompanied with an explanation of the specific deficiencies causing the rejection.

E.1.5. Non-conformances

Non-conforming products or services will be rejected. Deficiencies shall be corrected, by the contractor, within ten workdays of the rejection notice. If the deficiencies cannot be corrected within ten workdays, the contractor shall immediately notify the GSA COR of the reason for the delay and provide a proposed corrective action plan within ten workdays.

F.0 Deliveries or Performance

F.1. Period of Performance

The period of performance for this task order will be for a one (1) 1-year base period, to begin September ~~15~~ 28, 2020 or date of award, whichever is later. The period of performance for this task order will include an extension period from September 28th, 2021 to January 21st, 2022. The period of performance for this task order will include a second extension period from January 22, 2022 to September 27, 2022.

Start: On or before sixty (60) days after contract award.

~~Finish: The contractor shall complete all installation, testing, and shall submit acceptable test results for acceptance no later than. 210 days after the start date. (Government to determine dates for optional requirements).~~

F.2. Place of Performance

Place of Performance. Will be on Government installations primarily located in Germany. Principal place of performance is Ramstein AB, Germany (GE)

F.2.1. Normal Hours of Performance. The standard work hours for this contract are 0800 to 1700, Monday through Friday, for a standard 40-hour workweek. Contractors who work beyond the standard 40 hour workweek, without other contract provisions, shall do so at no additional charge to the Government. The COR and the contractor shall coordinate on split shifts and flexible scheduling requirements. Flexible scheduling refers to starting the business day at a time other than 0800 hours, but will not alter the standard work week of 40 hours cited above. The contractor shall work any flexible workday schedule within the pre-negotiated contract pricing.

F.2.2. For situational awareness and planning purposes, the contractor shall notify the COR in writing for planned vacations and other planned absences 30 days in advance.

F.2.3. The following U.S. Federal Holidays are recognized and the contractor is not required to work on these dates, unless otherwise specified in the PWS.

Table 1. Recognized U.S. Federal Holidays.

New Year's Day - January 1
Martin Luther King Day - 3rd Monday in January
President's Day - 3rd Monday in February
Memorial Day - Last Monday in May
Independence Day - July 4th
Labor Day - 1st Monday in September
Columbus Day - 2nd Monday in October

Veteran's Day - November 11th
Thanksgiving Day - 4th Thursday in November
Christmas Day - December 25th

F.3. Contract Deliverables. The contractor shall provide deliverables as specified below and as separately identified in this PWS to include timeframes for TO deliverables, to the COR or technical representative.

F.3.1. Contract Data Requirements List (CDRLs)

CDRL	PWS	CDRL TITLE	DELIVERY	Acceptable Quality Level
A001	C.4.1.1, C.4.1.2, C.4.1.5, C.4.1.6, C.4.3.1.1, C.4.3.2.1, C.4.4.1, C.4.4.2, C.4.5.1.1, F.3.7, F.3.8, H.3	Status Report / Weekly Activity Report	Weekly	100% inspection
A002	C.4.1.1, C.4.1.2, C.4.1.5, C.4.1.6, C.4.1.13, C.4.2.9, C.4.3.1.1, C.4.3.2.1, C.4.4.1, C.4.5.1.1, H.3	Integrated Master Schedule / IMS	To be delivered prior to work start date	100% inspection
A003	C.4.1.5, C.4.1.6, C.4.1.13, C.4.2.6, C.4.3.2.1, C.4.4.8, C.4.5.1.1, 4.6.2, 4.6.13, 4.6.14, 4.6.15.1, 4.6.16.1, 4.6.16.2, 4.6.24	Telecommunication System Installation Plan (TSIP)	Submit all updates to the approved TSIP, as required.	100% inspection
A004	C.3, C.4.1.3, C.4.1.5, C.4.2.1, C.4.2.9, C.4.2.10, C.4.2.11, G.4	Certification Checklist/test results/copies – TIA 942, Rating 3	To be delivered upon QA completion	100% inspection
A005	C.4.1.5, C.4.2.7, C.4.2.13, C.4.4.1, C.4.4.2, C.4.4.3, C.4.4.9, C.4.4.10, C.4.5.1.1, C.4.6.4, C.4.6.5	Health and Safety Plan	To be delivered 2 weeks prior to start of work at location.	100% inspection

The Contractor shall provide contract deliverable(s) in a format mutually agreed upon by the Government and the Contractor. All deliverables will be reviewed for timeliness, accuracy, and format. If a deliverable due date falls on a weekend or holiday, the Contractor shall submit the deliverable on the next business day following the due date.

The Government has unlimited rights to all deliverables of this contract to include intellectual property rights as specified in FAR Clause 52.227-14 (May 2014).

F.3.2. **Kick-Off Meeting.** The Contractor shall participate in a Kick-Off Meeting at a place and time approved by the Government. The meeting will provide an introduction between the Contractor personnel and Government personnel who will be involved with the contract. The meeting will provide the opportunity to initiate transition-in activities and to discuss management, technical, security, and administrative issues, travel authorization, reporting, and invoicing procedures. The initial kick-off meeting shall be conduct no later than five (5) days after contract award.

F.3.3. **Contract Discrepancy Report (CDR).** In the event of unsatisfactory contractor performance, the COR or CO will issue a CDR that will explain the circumstances and findings concerning the incomplete or unsatisfactory service. The Contractor shall acknowledge receipt of the CDR and respond in writing as to how he/she shall correct the unacceptable performance and avoid a recurrence. The Government will review the Contractor's corrective action response to determine acceptability and will use any completed CDR as part of an overall evaluation of Contractor performance when determining present or future contractual actions.
F.3.4. **Problem Notification Report (PNR).** The Contractor shall submit a Problem Notification Report (PNR) to the Technical POC, Client COR and GSA PM within three (3) days of the Contractor encountering a problem or risk event that significantly impacts the cost, schedule, or performance of the Order (or any deliverable or project under the contract). All PNRs must be tracked in the monthly status report (MSR) and through in-progress reviews (IPRs) until the Government agrees they are resolved.

F.3.5. **Standard Operating Procedures (SOPs) and Technical Documentation.** The Contractor shall develop, maintain, enhance, and revise all required project documentation including project charters; concepts of operation (CONOPS); business requirements documents; integrated business use cases, user stories, and epics; functional designs and specifications; technical designs and specifications; requirements traceability matrices; process flow and activity diagrams; developer/technical use cases to support USAFE 86 CS projects and programs; end-user documentation, and standard operating procedures.

F.3.6. Information Sources. The contractor’s proposal shall identify all Government information sources utilized in building the installation proposal. Any information required by the contractor, but not made available, shall be requested from the Contracting Specialist.

F.3.7. Documentation. The contractor’s proposal shall identify all documentation obtained from the base or AF sources used in developing the installation proposal. Any documentation required that has not been provided should be requested from the Contracting Specialist. (CDRL A001)

F.3.8. Staffing. The contractor shall maintain a stable workforce to ensure the successful performance of contract requirements and submit a staffing report as part of the Weekly Activity Report. The staffing report shall accurately reflect status of personnel, positions, and updated timelines (CDRL A001).

G.0 Contract Administration Data

G.1. Contract Type
Contact shall be priced on a hybrid firm fixed price/cost basis.

G.2. COR Designation and Performance Evaluation
The CO will provide the Contractor with a COR Designation Memorandum to inform them of the COR assigned to this contract.

Performance Evaluation: Contractor performance is subject to Government COR surveillance to ensure PWS compliance.

G.2.1. Contract Administration
G.2.2. **Government Points of Contact**
GSA Contracting Officer (CO)
Rahul Asher
GSA-FAS, Mid-Atlantic Region
The Dow Building - 3rd Floor, 100 S. Independence Mall West, Philadelphia, PA 19106
E-mail: rahul.asher@gsa.gov
Tel: 215-446-5030

GSA Contracts Specialist (CS)
Mackie Ermocida
GSA-FAS, Mid-Atlantic Region
The Dow Building - 3rd Floor, 100 S. Independence Mall West, Philadelphia, PA 19106
E-mail: immaculata.ermocida@gsa.gov
Tel: 215-446-4733

GSA Project Manager / Contracting Officer's Representative (COR)
Wesley Mellon
GSA-FAS, Mid-Atlantic Region
The Dow Building - 3rd Floor, 100 S. Independence Mall West, Philadelphia, PA 19106
E-mail: wesley.mellon@gsa.gov
Tel: 215-446-4566
~~Mr. Scott Ostrow~~
~~GSA-FAS, Mid-Atlantic Region~~
~~The Dow Building - 3rd Floor, 100 S. Independence Mall West, Philadelphia, PA 19106~~
~~E-mail: Scott.Ostrow@gsa.gov~~
~~Tel: 215-446-4497~~

USAFE 86 Communications Squadron Points of Contact (POC)
(b) (6)
Project Manager
86 Communications Squadron Plans & Resources/SCXP

Ramstein AB, Building 2103 Maxwell Ave 66877
Email: (b) (6)
Tel: (b) (6)

G.3. The contractor shall identify a Point of Contact (POC) and an alternate (if the POC is not available) responsible for the performance of the work. Their contact information shall be provided to the COR within five (5) days after award of the contract. The contractor shall provide written notice to the KO and COR/POC of any change of the POC or his alternate within twenty-four (24) hours following the change. The POC or alternate shall be available telephonically at all times for the duration of the performance period.

G.4. Quality Control. At a minimum the contractor shall adhere to a Rating 3 Data Center per ANSI/TIA 942. The contractor shall ensure 100% connectivity through all cable runs. The contractor shall perform a generator test to ensure the full functionality of the system (CDRL A004).

G.5. Quality Assurance. The COR, with the assistance of the 86th Communications Squadron Quality Assurance representative, shall perform random sampling tests throughout the period of performance in accordance with T.O. 00-33A-1001 Appendix C. Upon the receipt of the TSIP and potential changes, the COR, the PM, and associated work centers shall conduct a 100% inspection review to ensure the standards are being complied with. During the generator test, that the contractor will be performing; the COR, the PM, and/or QA shall be present to ensure that the generator operates as intended in order for the 86 CS to accept the system as operational.

G.6. Quality Assurance Surveillance Plan (QASP). The Government intends to utilize a Quality Assurance Surveillance Plan (QASP) to monitor the quality of the Contractor's performance. The oversight provided for in the order and in the QASP will help to ensure that service levels reach and maintain the required levels throughout the contract term. Further, the QASP provides the COR with a proactive way to avoid unacceptable or deficient performance. The QASP will be finalized immediately following award and a copy provided to the Contractor after award. The QASP is a living document and may be updated by the Government as necessary.

G.7. Performance Evaluation Process. The Contractor Performance Assessment Reporting System (CPARS) has been adopted by GSA to electronically capture assessment data and manage the evaluation process. CPARS is used to assesses a Contractor's performance and provide a record, both positive and negative, on a given contract during a specific period of time. The CPARS process is designed with a series of checks and balances to facilitate the objective and consistent evaluation of Contractor performance. Both Government and Contractor program management perspectives are captured on the CPAR form and together make a complete CPAR. Once the Assessing Official completes the proposed assessment for the period of performance, the CPARS is released to the appropriate Government Contractor Representative for their review and comments. User ID and Password will be provided to the designated Government Contractor Representative upon issuance of a contract. The Contractor has 30 days after the Government's evaluation is completed to comment on the evaluation. The Government Contractor Representative must either concur or non-concur to each CPAR. If the Contractor concurs with the proposed assessment and the Reviewing Official does not wish to see the CPAR, the Assessing Official may close out the CPAR. Otherwise, they must forward the CPAR to the Reviewing Official for them to review, enter comments if appropriate, and close out. The

Reviewing Official may at their option direct the Assessing Official to forward every CPAR to them for review.

G.8. Invoice and Billing

Billing and payment shall be accomplished in accordance with the contract award CLINs structure and cost and will be invoiced on a monthly basis through GSA ITSS website.
The Period of Performance (POP) for each invoice shall be for one calendar month. The Contractor shall submit only one invoice per month per order/contract. The appropriate GSA office will receive the invoice by the twenty-fifth calendar day of the month after either:

(1) The end of the invoiced month (for services) or

(2) The end of the month in which the products (commodities) or deliverables (fixed-priced services) were delivered and accepted by the Government.

For Labor Hour and Time and Material orders/contracts each invoice shall show, the skill level category, the hours worked per skill level, the rate per skill level and the extended amount for that invoice period. It shall also show the total cumulative hours worked (inclusive of the current invoice period) per skill level, the hourly rate per skill level, the total cost per skill level, the total travel costs incurred and invoiced, and the total of any other costs incurred and invoiced, as well as the grand total of all costs incurred and invoiced.

The Contractor shall submit all required documentation (unless exempted by the contract or order) as follows:

For Travel: Submit the traveler's name, dates of travel, location of travel, and dollar amount of travel.

For ODCs: Submit a description of the ODC, quantity, unit price and total price of each ODC.
Note: The Government reserves the right to audit, thus; the Contractor shall keep on file all backup support documentation for travel and ODCs.

Note: For Firm Fixed Price, Labor Hour, and Time and Material fiscal task items:

Charges:
• All invoice charges must be task item specific (only one task item) unless concurrent task item periods of performance exist.
• For invoices with concurrent task item periods of performance all invoice charges must be service month specific (that is one service month only).

Credits:
• If the credit invoice is for the same year of a particular ACT#, the Contractor shall include that credit on a subsequent invoice submission against that same ACT#. If the Contractor is unwilling to offset a subsequent invoice then they must submit a refund check.

• When the credit invoice is for a different year, the Contractor shall submit a refund check for that credit invoice.

Invoices that net to a credit balance **SHALL NOT** be accepted. Instead a refund check must be submitted by the Contractor to GSA accordingly. The refund check shall cite the ACT Number and the period to which the credit pertains. The Contractor shall provide the credit invoice as backup documentation. Do not attach credit invoice in ITSS or on the Finance website. It must be attached to the refund check. The refund check shall be mailed to:

General Services Administration
Finance Division
P.O. Box 71365
Philadelphia, PA 19176-1365

Posting Acceptance Documents: Invoices shall be submitted monthly through GSA's electronic Web-Based Order Processing System, currently ITSS to allow the client and GSA COR to electronically accept and certify services received by the customer representative (CR). Included with the invoice will be all back-up documentation required such as, but not limited to, travel authorizations and training authorizations (including invoices for such).

Receiving Agency's Acceptance: The receiving agency has the following option in accepting and certifying services:

a. **Electronically:** The client agency may accept and certify services electronically via GSA's electronic Web-Based Order Processing System, currently ITSS, by accepting the Acceptance Document generated by the Contractor. Electronic acceptance of the invoice by the CR is considered concurrence and acceptance of services.

Content of Invoice: The Contractor's invoice will be submitted monthly for work performed the prior month. The Contractor may invoice only for the hours, travel and unique services ordered by GSA and actually used in direct support of the client representative's project. The invoice shall be submitted on official letterhead and shall include the following information at a minimum.

1. GSA Order Number
2. Contract ACT Number
3. Remittance Address
4. Period of Performance for Billing Period
5. Point of Contact and Phone Number
6. Invoice Amount
7. Skill Level Name and Associated Skill Level Number
8. Actual Hours Worked During the Billing Period
9. Travel Itemized by Individual and Trip (if applicable)
10. Training Itemized by Individual and Purpose (if applicable)
11. Support Items Itemized by Specific Item and Amount (if applicable)

Final Invoice: Invoices for final payment must be so identified and submitted within 60 days from task completion and no further charges are to be billed. A copy of the written acceptance of

task completion must be attached to final invoices. The Contractor shall request from GSA an extension for final invoices that may exceed the 60-day time frame.
The Government reserves the right to require certification by a GSA COR before payment is processed, if necessary.

G.9. Close-out Procedures.
General: The Contractor shall submit a final invoice within sixty (60) calendar days after the end of the Performance Period. After the final invoice has been paid the Contractor shall furnish a completed and signed Release of Claims (GSA Form 1142) to the Contracting Officer. This release of claims is due within fifteen (15) calendar days of final payment.

G.10. Technical Direction Letters.
The Government may issue a Technical Direction Letter (TDL) for support of additional work determined in scope of Problem Notification Reports (PNRs) submitted in accordance with PWS Section F.3.4. The Contractor shall submit a Rough Order of Magnitude (ROM) Estimate for the work detailed in the TDL. The ROM total will be used as a Not-to-Exceed (NTE) value for the work described in the TDL. Each TDL will be funded at the time approved and work is not authorized to begin until the Contractor receives approval of the ROM by USAFE & GSA.

The Technical Direction Letter:

a. Defines extent of support and nature of work to be performed;
b. Specifies the place(s) of performance and technical details about the project;
c. Identifies the deliverables and associated due dates, if any;
f. Specifies any special procedures or security clearance requirements

H.0 Special contract requirements
H.1. Government Furnished Property, Equipment, and Information (GFP/E/I)
The contractor's proposal shall identify any government-furnished resources or other base support required to implement the project.

The Government will provide all Government Furnished Property (GFP) in accordance with FAR Part 45 guidelines. Government Furnished Material (GFM) and Government Furnished Equipment (GFE) may be provided to support individual task orders under this IDIQ. Contractors shall be responsible for preventing damage to all GFM/GFE. Contractors shall be responsible for conducting all necessary examinations, inspections, maintenance and tests of all GFE. Contractors shall be responsible for reporting all inspection results, maintenance actions, losses and damage to the Government. If a Contractor loses or damages the equipment, it will be the Contractor's responsibility, in accordance with the contract clauses, to replace or repair the equipment to original or better condition at no additional cost to the Government.

Contractors shall dispose, recycle, or salvage components as directed by the Government. Contractors shall, at a minimum, meet the requirements in accordance with MIL-STD-882E and DoD 5000.02. At the conclusion of each task order PoP, the Contractor shall account for, return, and/or dispose of all GFP within thirty (30) calendar days from completion of the PoP.
H.2. Government Furnished Information (GFI)
The Contractor shall protect Government data and information, by treating the information as sensitive. Sensitive but unclassified information shall only be disclosed to those authorized

personnel described in the task order. The Contractor shall keep the information confidential and use appropriate safeguards to maintain its security in accordance with minimum Federal standards. When no longer required, information shall be returned to Government control, destroyed, or held until otherwise directed by the Ordering CO. GFI will be identified and provided at the individual task order level. The Government will make available to contractors, GFI to include Government forms, publications and documents and access to manuals and materials necessary to perform work under the individual task orders.

The Contractor shall ensure that appropriate administrative, technical, and physical safeguards are established to ensure the security and confidentiality of information is properly protected. The Contractor shall be responsible for properly protecting all information used, gathered, or developed as a result of work under the task order.

Work under specific task orders may require that the Contractor's personnel to have access to Privacy Information. Contractor personnel shall adhere to the Privacy Act, Title 5 of the U.S. Code, section 552a and applicable agency rules and regulations.

H.3. Security and Privacy Requirements

Contractors shall use the standard procedures for working in-country, following all FAXBAC form requirements for each 90 day period and coordinate with the 86th security manager (CDRLs A001 and A002).

Individuals performing work under this TO shall comply with applicable program security requirements as stated in this TO PWS.

H.3.1. Any Local National (LN) companies selected as a Subcontractor shall be vetted via the Prime Contractor and given base access to perform the work required. There will be no security clearance requirement in this PWS. All escort responsibilities shall be provided by the Prime Contractor and any variance would be coordinated by the COR, and approved by the CO.

H.3.2. System and Network Authorization Access Requests. For contractor personnel who required access to DoD, DISA, or USAF computing equipment or networks, the contractor shall have the employee, prime or subcontracted, sign and submit a DD Form 2875, System Authorization Access Request (SAAR), to the COR within 2 business days of being employed for work on this contract.

H.3.3. Physical Security. The contractor shall be responsible for safeguarding all government equipment, information and property provided for contractor use. At the close of each work period, government facilities, equipment, and materials shall be secured. When authorized in writing by the unit of assignment unit commander, contractors may be authorized to Open/Close the facility. Specific facility Opening/Closing training will be provided by the unit of assignment Unit Security Manager. The contractor shall comply with established security procedures.

H.3.4. COMSEC Notice. All communications with DoD organizations are subject to COMSEC review. Contractor personnel shall be aware that telecommunication networks are continually subject to intercept by unfriendly intelligence organizations. The DoD has authorized the military departments to conduct COMSEC monitoring and recording of telephone calls originating from, or terminating at, DoD organizations. Therefore, contractor personnel are advised that any time they place a call to, or receive a call from, an USAF organization, they are subject to COMSEC procedures. The contractor shall assume the responsibility for ensuring wide and frequent dissemination of the above information to all employees dealing with official DoD information.

H.3.5. Weapons, Firearms and Ammunition. Contractor employees are prohibited from possessing weapons, firearms, or ammunition, on themselves or within their contractor-owned vehicle or privately-owned vehicle while on any installation covered under this contract unless explicitly allowed under USAFE or other applicable installation instructions and/or regulations.

For Government installations in Germany contractor employees shall adhere to USAFE Instruction (USAFEI) 31-205, Registrations and Control of Privately Owned Firearms and Other Weapons in Germany.

H.3.6. Reporting Requirements: Contractor personnel shall report to an appropriate authority any information or circumstances of which they are aware that is: illegal; may pose a threat to the security of DoD personnel, contractor personnel, or resources, or violates official regulations, directives or instructions and/or classified or unclassified defense information. Contractor employees shall be briefed by the COR upon initial on-base assignment.

H.3.7. Key Control. The contractor shall establish and implement methods of making sure all keys issued to the contractor by the Government are not lost or misplaced and are not used by unauthorized persons. All government issued keys will be returned at the end of employment or contract. The contractor shall not duplicate any keys issued by the Government.

H.3.8. The contractor shall immediately report to the COR any occurrences of lost or duplicated keys. In the event keys, are lost or duplicated, the contractor may be required, upon written direction of the CO, to rekey or replace the affected lock or locks without cost to the Government. The Government may, however, at its option, replace the affected lock or locks or perform re-keying and deduct the cost of such from the monthly payment due to the contractor.

H.3.9. The contractor shall not loan issued keys to any other persons nor allow access by use of issued keys to other persons not associated with performance of work at the contract work site.

H.4. Organizational Conflict of Interest (OCI).
Whenever the Government solicits information from the contractor for the purposes of issuing a potential TO (or, if the Government issues a TO without first soliciting information from the contractor), unless the TO states that it is exempt from the OCI provisions, the contractor shall promptly review the services ordered prior to commencing performance and inform the TO CO, in writing, of any pre-existing circumstances which might create a conflict of interest under the OCI provisions of this contract with a plan to mitigate conflicts. In such event, the Government may, in its sole discretion, either cancel the TO at no-cost to the Government or grant a waiver to the OCI provisions and direct the contractor to proceed with performance. This process will also apply over the life of the TO.

H.5. Disclosure of Information
Information made available to the Contractor by the Government for the performance or administration of this effort shall be used only for those purposes and shall not be used in any other way without the written agreement of the Contracting Officer. The Contractor agrees to assume responsibility for protecting the confidentiality of Government records, which are not public information. Each Contractor or employee of the Contractor to whom information may be made available or disclosed shall be notified in writing by the Contractor that such information may be disclosed only for a purpose and to the extent authorized herein.

H.6. Non-Personal Services. This is a TO for non-personal services, defined by FAR Part 37 as "Contract under which the personnel rendering the services are not subject either by the

contract's terms or by the manner of its administration to the supervision and control usually prevailing in relationships between the Government and its employees".

H.6.1. The Government will not supervise or otherwise direct contractor employees nor control the method by which the contractor performs the required tasks. The contractor shall not supervise or otherwise direct Government employees, nor shall the contractor supervise employees of other contractors outside the contractor's own subcontracting/ teaming arrangements.

H.6.2. Under no circumstances will the Government assign tasks to, or prepare work schedules for individual contractor employees. It shall be the responsibility of the contractor to manage its employees and to guard against any actions that are of the nature of personal services, or give the perception of personal services. If the contractor feels that any action constitute, or are perceived to constitute personal services, it shall be the contractor's responsibility to notify the TO CO immediately. These services shall not be used to perform work of policy/decision making or management nature, i.e. inherently Governmental functions. All decisions relative to programs supported by the contractor shall be the sole responsibility of the Government.

H.7. DOD Contractor Manpower Reporting

The Contractor Manpower Reporting (CMR) system is a business process to collect information on funding source, contracting vehicle, organization supported, mission and function performed, and labor hours and costs for contracted efforts. Contractors report actual labor hours, dollars, and other information from their accounting systems directly into this system, or through their Army Requiring Activity, using their existing timekeeping, personnel, and accounting systems as well as information supplied with the contract CMR data must be accurate and complete and entered into CMR during the data gathering period of 1 October through October 31 for every year, or part of a year, for which the contract is in force. Contractors may direct questions to the help desk at: http://www.ecmra.mil/.

H.8. Performance of Services During Crisis Declared by the President of the United States, the Secretary of Defense, or Overseas Combatant Commander. IAW DODI 1100.22, , paragraph 5b, it has been determined that this requirement is not Mission Essential (ME).

H.9. Environment

H.9.1. Conformance with Environment Management Systems (EMS).

The contractor shall perform work under this contract consistent with the relevant environmental policy and objectives identified in the installation Environment Management System applicable for your contract. The contractor shall perform work in a manner that conserves water, energy and other resources to the maximum extent feasible and ensure minimum production of waste as possible, giving preference to recycling and reutilization opportunities. Furthermore, the contractor shall give preference to less toxic materials whenever available and still reliable for their work. In the event an environmental nonconformance or noncompliance of host nation and USAF environmental laws and regulations associated with the contracted services is identified, the contractor shall take corrective and/or preventative actions. In the case of a noncompliance, the contractor shall respond and take corrective action immediately. In the case of a nonconformance, the contractor shall respond and take corrective action based on the time

schedule established by the Environment Management System Coordinator. In addition, the contractor shall ensure that their employees are aware of the environmental management system on base and how these requirements affect their work performed under this contract.

All on-site contractor personnel shall receive the installation Environment Management System awareness level information.

H.9.2. Conformance with Environmental Requirements.
H.9.2.1.1. The contractor shall perform all work IAW applicable German and US Air Force environmental laws, regulations and operating standards, including but not limited to the Final Governing Standards (FGS) for Germany. The contractor shall be immediately capable of understanding and addressing environmental laws and regulations as they pertain to work performed under this contract.

H.9.2.1.2. The FGS for Germany and other important environmental laws & requirements applicable for all contractors working on base can be found at the Environment Management System SharePoint Website:
https://ice.usafe.af.mil/sites/EMS/Legal%20%20Other%20Requirements/Forms/AllItems.aspx

H.10. Defense Base Act (DBA) Insurance
DBA Insurance, Contractors shall obtain commercially available DBA insurance from a Department of Labor (DOL) authorized insurance carrier unless the contractor is under a self-insurance program approved by the DOL or subject to a waiver. The DOL approved carriers and self-insured employers are available at http://www.dol.gov/owcp/dlhwc/lscarrier.htm. The DBA insurance premium amount varies with payroll and the nature of services. The actual amount paid by the Government under this CLIN will be based on the actual paid amount for DBA and submitted by the contractor after contract award. In the event of recalculation of the premium by the DBA Insurer based on actual payroll amounts, the Contracting Officer will adjust this CLIN by contract modification to reflect the actual premium amount paid. The vendor shall obtain DBA Insurance prior to any work performed under this contract.

H.11. Standards and References
H.11.1. All installation work shall conform to the noted standards provided in Appendix A of this PWS.

H.11.2. In the event of a conflict between the documents referenced in this PWS and the contents of this PWS, the contents of this PWS shall be considered superseding. In case of conflicts between the documents listed below, the Government Contracting Officer (CO) shall make the final determination as to which reference takes precedence.

H.11.3. **Warranty.** The contractor shall provide a twelve (12) month warranty on all contractor provided equipment and installation (parts and labor), at no additional charge to the Government. This warranty shall start from date of acceptance of the completed project and shall run a consecutive 12 months.

H.12. Contractors Identification. All contractors/subcontractors personnel shall be required to wear USAF-approved or provided picture identification badges so as to distinguish themselves from Government employees. When conversing with Government personnel during business meetings, over the telephone, in all recorded messages including those which are heard by callers attempting to contact contractor employees via answering machines or voice mail, or via electronic mail, contractor/ subcontractor personnel shall identify themselves as such to avoid situations arising where sensitive topics might be better discussed solely between Government employees. Contractors/subcontractors shall identify themselves on any attendance sheet or any coordination documents they may review. Identify themselves as contractor personnel at the onset of every meeting, conference or any other gathering attended in support of any service provisions to the Government. Identify themselves as contractor personnel on any correspondence, documents or reports accomplished or sent in support of any service provision to the Government, including but not limited to, correspondence sent via the U.S. Mail, facsimile or electronic mail (e-mail) inclusive of "out-of-office" replies. The contractor shall observe and otherwise be subject to such security regulations as are in effect for the particular premises involved. Electronic mail signature blocks shall identify their company affiliation. Where practicable contractor/ subcontractors occupying collocated space with their Government program customer shall identify their work space area with their name and company affiliation.

H.12.1. The contractor shall designate in writing, an on-the-premises representative to serve as point of contact for the contractor to the CO and the COR upon start of the mobilization phase.

H.12.2. All contractor and subcontractor employees shall dress to a commercial standard for a professional work environment.

I.0 Task Order Clauses

I.1. FAR Clauses

FAR CLAUSE	CLAUSE TITLE	DATE
	Section 508	
	GSA Invoicing Clause	
FAR 9.5	Organizational Conflict of Interest	
FAR 52.204-9	Personal Identity Verification of Contractor Personnel	(JAN 2011)
52.209-11	Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law	(FEB 2016)
52.204-24	Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment	(AUG 2019)
52.217.5	EVALUATION OF OPTIONS	(JUL 1990)
52.217-8	OPTION TO EXTEND SERVICES	(NOV 1999)
52.217-9	OPTION TO EXTEND THE TERM OF THE CONTRACT	(MAR 2000)

52.222-25	AFFIRMATIVE ACTION COMPLIANCE	(APR 1984)
52.224-1	Privacy Act Notification	(APR 1984)
52.227-01	Authorization and Consent	(Dec 2007)
52.227-02	Notice and Assistance Regarding Patent and Copyright Infringement	(Dec. 2007)
52.227-03	Patent Indemnity	(Apr 1984)
52.227-06	Royalty Information	(Apr 1984)
52.227-09	Refund of Royalties	(Apr 1984)
52.227-14	Rights in Data – General	(DEC 2007)
52.229-8	Taxes-Cost-Reimbursement Contracts with Foreign Governments.	(MAR 1990)
52.232-2	LIMITATION OF COST	(APR 1984)
52.232-19	AVAILABILITY OF FUNDS FOR NEXT FY	(APR 1984)
52.232-22	Limitation of Funds	(APR 1984)
52.232-39	UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS	(JUN 2013)
52.237-3	Continuity of Services	(JAN 1991)
52.245-1	Government Property	(APR 2012)

I.2. DFARS Clauses

DFAR CLAUSE	CLAUSE TITLE	DATE
252.225-7043	Antiterrorism/Force Protection for Defense Contractors Outside the United States	(JUN 2015)
252.227-7015	Technical Data – Commercial Items	(JUN 2013)
252.227-7017	Identification and Assertion of Use, Release, or Disclosure Restrictions	(JAN 2011)
252.227-7019	Validation of Asserted Restrictions--Computer Software	(SEP 2011)
252.227-7025	Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends	(MAY 2013)
252.227-7027	Deferred Ordering of Technical Data or Computer Software	(APR 1988)
252.227-7028	Technical Data or Computer Software Previously Delivered to the Government	(JUN 1995)
252.232-7007	Limitation of Government's Obligation	(APR 2014)
252.229-7001	Tax Relief – Alternate I	(APR 2020)

DFARS 252.229-7001 – Tax Relief – Alternate I – APR 2020

(a) Prices set forth in this contract are exclusive of all taxes and duties from which the United States Government is exempt by virtue of tax agreements between the United States Government and the Contractor's government. The following taxes or duties have been excluded from the contract price:

NAME OF TAX: Value Added Tax / Mehrwertsteuer RATE (PERCENTAGE): 19%

(b) Invoices submitted in accordance with the terms and conditions of this contract shall be exclusive of all taxes or duties for which relief is available. The Contractor's invoice shall list separately the gross price, amount of tax deducted, and net price charged.

(c) When items manufactured to United States Government specifications are being acquired, the Contractor shall identify the materials or components intended to be imported in order to ensure that relief from import duties is obtained. If the Contractor intends to use imported products from inventories on hand, the price of which includes a factor for import duties, the Contractor shall ensure the United States Government's exemption from these taxes. The Contractor may obtain a refund of the import duties from its government or request the duty-free import of an amount of supplies or components corresponding to that used from inventory for this contract.

(d) Tax relief will be claimed in Germany pursuant to the provisions of the Agreement Between the United States of America and Germany Concerning Tax Relief to be Accorded by Germany to United States Expenditures in the Interest of Common Defense. The Contractor shall use Abwicklungsschein fuer abgabenbeguenstigte Lieferungen/Leistungen nach dem Offshore Steuerabkommen (Performance Certificate for Tax-Free Deliveries/Performance according to the Offshore Tax Relief Agreement) or other documentary evidence acceptable to the German tax authorities. All purchases made and paid for on a tax-free basis during a 30-day period may be accumulated, totaled, and reported as tax-free.

J.0 List of Attachments

ATTACHMENT	TITLE
A	COR Appointment Letter
B	Floor Plan Building Buildings 2039
C	Floor Plan Building Buildings 2288
D	Floor Plan Building Buildings 2301
E	Fiber Path 1
F	Fiber Path 2

Appendix A - Applicable Documents

A.1. Standards

ANSI/TIA-942	Telecommunications Infrastructure Standard for Data Centers
ANSI/ICEA S-87-640	Fiber Optic Outside Plant Communications Cable
ANSI/TIA/EIA-455-107 FOTP-107	Return Loss for Fiber Optic Components
ANSI/TIA/EIA-455-171 FOTP-171	Attenuation by Substitution Measurement for Short Length Multimode and Graded Index and Single-Mode Optical Fiber Cable Assemblies
ANSI/TIA/EIA-455-61 FOTP-61	Measurement of Fiber or Cable Attenuation Using An OTDR (Optical Time Division Reflectometer)
ANSI/TIA/EIA-526-7	OSTP-7 Measurement of Optical Power Loss of Installed Single-mode Fiber Cable Plant
ANSI/TIA/EIA-568-C.3	Optical Fiber Cabling Components Standard
ANSI/TIA/EIA-598-C	Optical Fiber Cable Color Coding
RUS Bulletin 1735-401	Standard for Splicing Copper and Fiber cabling
ANSI TIA-606-B	Cable Labeling Standards

A.2. Reference Material

AFMAN 17-1302-O	Communication Security
AFSSI 7700	Emission Security
AFSSI 7702	Emission Security Countermeasures Reviews
AFSSI 7703	Protected Distribution Systems
CNSSI 4001	(U) Controlled Crytographic Items
T.O. 00-33A-1001	General Cyberspace Support Activities Management Procedures and Practice Requirements\

TRGS 521	Technical Rules for Hazardous Substances
DGUV Regel 101-004 (BGR 128)	Working in Contaminated Areas
Baustellenverordnung	Ordinance on safety and health protection on construction sites

Department of Defense (DoD) Information Enterprise Architecture Data Center Reference Architecture, Version 3.0, June 30, 2019

German Institute for Standardization (DIN/VDE) https://www.din.de/en

Appendix B – Installation Support

B.1. Government Support The government will furnish facilities and utilities to the contractor, including light, heat, ventilation, electric current and outlets for use by installation personnel as required. The facilities will be readied prior to arrival of contractor personnel and be provided at no cost to the contractor. The contractor shall provide required temporary utilities, which are not readily available in the work area. The contractor shall coordinate, with the COR, any requirement before temporary disconnection of a utility. The contractor shall submit a request in writing to the COR fourteen (14) days in advance of the necessity of utility disconnection.

B.2. Host Nation Installations As specified by the T.O., the contractor shall use commercial telephone industry installation standards for accomplishment of all installation work unless otherwise prohibited by host nation regulations and/or standards. The contractor shall determine if any host nation restrictions are applicable to any installation. The contractor shall be responsible for compliance with all host nation labor, safety and environmental laws, regulations and standards applicable at each installation location. If any additional permits or regulations apply, the contractor shall inform the government and provide a proposal to initiate the appropriate documentation upon approval from the government.

B.3. Department of Defense (DoD) Identification/Installation Entry Contractor/Employee Base Pass And Identification, Special Clearances And Vehicle Passes. The Contractors personnel shall obtain Base Entry Identification, Installation Common Access Card (ICAC). In order to obtain the ICAC the Contractor is required to submit a USAFE IMT 79 (Request for Base Entry Identification), Memo of Base ID request and the Security Questionnaire for simple security check as well as a Police Good Conduct Certificate (Polizeiliches Fuehrungszeugnis). USAFE IMT 79, Memo of Base ID request and the Security Question forms shall be provided by the 786 CES/CEOES COR. Contractor personnel will take the USAFE Form 79, Memo of Base ID request along with certification of good personal conduct and the Security Questionnaire to Building #134 at Ramstein Air Base, to obtain Base Entry Identification. Contractor Personnel can only gain access to the KMC after the security check has been passed with positive result. It is the responsibility of the Contractor to collect and turn- in the ICAC within one week for personnel no longer employed.

The Government will provide those personnel who require regular access to DoD facilities a Common Access Card (CAC) identification badge containing valid DoD Public Key Infrastructure (PKI) certificates. The Government will provide the personnel working tasks on this DO, who do not require regular access to DoD facilities, with a Letter of Identification (LOI) when necessary to access a government or military facility. Access to DoD websites shall not be considered an adequate reason for the issuance of a CAC if those sites accept External Certification Authorities (ECA) certificates in lieu of CAC-based PKI certificates. Additional information regarding ECAs, including information on where to obtain certificates, can be found at http://iase.disa.mil/pki/eca.

B.3.1. Logistical Support The U.S. Government will provide individual logistical support for Contractor personnel to the extent available and as authorized by NATO Status of Forces Agreement Supplementary Agreement (SOFA SA) Article ~~72~~73, and foreign regulations; by

current applicable international agreements, arrangements, policies; and the local Installation Commander. The duration of the initial individual logistical support authorization may be subject to a time limitation. Prior to expiration of the initial logistical support authorization (if and as applicable), the COR and Contractor shall expedite/process the individual Renewal/Authorization in sufficient advance to ensure continuation of logistical support. Logistical support is provided only for those contractor personnel that are providing services solely for U.S. Forces. Logistical support, if granted, will only be provided to authorized, full-time (40 hours per week) contractor, part-time (minimum of 20 hours per week) contractor as defined in paragraphs 4.4.6.

The following logistical support will be provided to applicable contractor personnel:

1) Commissary
2) Army Air Force Exchange Service
3) Armed Forces Recreation Facilities
4) Class VI (alcoholic beverages, including rationed items)
5) Legal assistance (on a space available basis)
6) Local government transportation for official government business (non-tactical vehicle)
7) Local Moral/Welfare Recreation Services
8) Military Banking facilities
9) Military postal services
10) Officer and NCO Club memberships
11) Mortuary services
12) Privately Owned Vehicle (POV) authorization
13) Housing office (Note: Limited. These services are limited to translation assistance and an explanation of host-country rental laws and utility and telephone services)
14) Petroleum, Oils, and Lubricants (POL) purchases
15) Transient billets on space available basis
16) Messing Facilities at remote sites only (reimbursable)
17) Army Continuing Education Services
18) Credit union facilities
19) Medical/Dental on a reimbursable basis. Dental on emergency basis only
20) Pet and firearm registration and control
21) NATO Status of Forces Agreement stamp (subject to approval of Host nation Customs Authority)
22) Customs exemptions

NOTE: Subcontractors receive no logistical support under Troop Care.

B.3.1.1. Authorization of Contractor Personnel The representative host country and U.S. Government shall make the determination of a contract employee's status with respect to being an ordinary resident. Authorized Contractor personnel will be granted privileges consistent with those granted members of the civilian component of the U.S. Forces, as defined below.

An authorized contractor personnel is defined as an individual who: (1) has been hired as a consequence of this contract, (2) is a full-time (40 hours per week or more) contract employee, (3) is employed in a Host Nation country, (4) is a national (citizen) of or an ordinary resident of the United States provided that the contract employee is not also a Host Nation country (local) resident (i.e., a dual citizen), or (5) is a U.S. citizen or a citizen of a NATO country other than

the Host Nation provided that the contract employee is not an ordinary resident of the Host Nation.

B.31.2. Overseas Requirements The Contractor is responsible for ensuring that all country clearances, passports, visas, and accreditations required by the Host Nation are obtained prior to employment of individuals under this contract. Documentation requirements are subject to change as Status of Forces Agreement(s) (SOFA) change. In the event a proposed Contractor employee is denied Host Nation approval, accreditation, and/or permission, the prospective awardee shall submit like documentation for another nominee. The Contractor will be responsible for obtaining the appropriate country specific requirements, and will coordinate this with the CO or COR. All Contractor personnel shall have been accredited, cleared, granted visas, etc., to specific positions at specific overseas locations. The Contractor shall provide written notification to the CO and the COR within 24 hours of becoming aware of accredited Contract personnel no longer performing duties requiring accreditation/clearances/permissions. The Contractor shall recognize that Host Nation authorities may conduct on-site inspections at any time in the Contractor personnel's work area for the purpose of verifying the status of positions and Contractor personnel and appropriate visas or permissions. The Contractor shall assume all costs related to submission of required documentation. At the time of preparation of this contract, applicable information and forms for placement of Contractor personnel in Germany may be accessed at the DOCPER and U.S. Department of State websites (http://www.eur.army.mil/g1/content/CPD/docper.html). The Contractor shall provide the CO the required documentation for all support services personnel in due time to comply with required performance periods of the contract by taking into consideration that the DoD Contractor Personnel Office (DOCPER) process requires an average of 12-16 weeks for completion.

Appendix C – Drawings

C.1. All applicable drawings shall be provided to the contractors. Drawings shall include the building floor plan and the two fiber run paths. The Contractor shall provide drawings in Visio and pdf formats.

- Final rack configurations, Elevation Drawings
- Interconnect drawings of the network equipment both within and between the racks
- Final First Floor Plan/Layout of Building 2039
- Final Floor Plan/Layout of Communication Room, Building 2288
- Final Floor Plan/Layout of Building 2301